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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,354	07/17/2003	Isamu Ohshita	107156-00193	8911

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EXAMINER

PERRY, ANTHONY T

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/620,354

Applicant(s)

OHSHITA ET AL.

Examiner

Anthony T. Perry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-15 is/are rejected.
- 7) ☒ Claim(s) 7,8 and 10-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/24/06 has been entered.

Claim Objections

Claims 7, 8, 10, 11, and 12 are objected to because of the following informalities: ~~XXXX~~

Claim 7 recites the limitation "said light-emitting film" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "said light-emitting film" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "said light-emitting film" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "said light-emitting film" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "said light-emitting film" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 6, 7, 8, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogura et al. (US 2002/0070663 A1).

Regarding claim 1, Ogura et al. teach an organic electroluminescent display device comprising a plurality of pixels located above a substrate (1001), wherein each pixel is formed by two light emitting elements producing only two different colors of predetermined chromaticity values (Figure 6 shows three different colors per pixel, but paragraph 0168 states that two colors instead of three colors may be used), wherein each light-emitting element is formed by interposing a luminescent layer (1004) containing organic electroluminescent materials between a pair of electrodes (1002, 1006), and at least one of the pair of electrodes comprises a plurality of independent array patterns to the light-emitting elements (see for example, Fig. 6 and paragraphs 0166-0168).

Regarding claims 2 and 4, Ogura teaches the different colors being, for example, blue and yellow (paragraph 0168). It is noted that Ogura does not specifically state that the two different colors are mixed to produce a white color. However, claim 2 only recites that the two different colors can produce a white color that is designated by a white region in a CIE xy chromaticity diagram. It is well known in the art that blue and yellow color EL elements can produce a white color that is designated by a white region in a CIE xy chromaticity diagram.

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Regarding claim 6, Ogura teaches doping (coupling with a foreign material) the light emitting layers (for example, see paragraph 0073).

Regarding claim 7, the functional language, "said chromaticity values of two colors are controlled by changing thickness of said light emitting film" has not been given patentable weight because it is narrative in form. In order to be given patentable weight, a functional recitation must be expressed as a "means" for performing the specified function, as set forth in 35 U.S.C. § 112, 6th paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. *In re Fuller*, 1929 C.D. 172: 388 O.G. 279.

Claim 8 is drawn to a process of manufacturing which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (see MPEP 2113). Therefore, it is the position of the examiner that it would have been obvious to one of ordinary skill in the art that the OLED disclosed by Ogura et al. is at least a fully functional equivalent to the Applicant's claimed OLED as evidenced by Ogura's suggestion of all of the Applicant's claimed structural limitations.

Claim 12 is drawn to a process of manufacturing which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (see MPEP 2113). Therefore, it is the position of the examiner that it

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would have been obvious to one of ordinary skill in the art that the OLED disclosed by Ogura et al. is at least a fully functional equivalent to the Applicant's claimed OLED as evidenced by Ogura's suggestion of all of the Applicant's claimed structural limitations. Furthermore, Ogura et al. teach the EL layer being formed by a printing method (for example, see paragraph 0054).

Claims 1, 10, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Tang et al. (US 5,294,870).

Regarding claims 1, 10, and 11, Tang et al. teach an organic electroluminescent display device comprising a plurality of pixels located above a substrate (105), wherein each pixel is formed by two light emitting elements producing only two different colors of predetermined chromaticity values (Figures 4 and 5 show three different colors per pixel, but col. 38, lines 5-24 teaches that the blue sub-pixel (B_p) can be eliminated), wherein each light-emitting element is formed by interposing a luminescent layer (EL) containing organic electroluminescent materials between a pair of electrodes (R_{11} and c,d,e), and at least one of the pair of electrodes comprises a plurality of independent array patterns to the light-emitting elements (see for example, Figs. 4 and 5 and col. 38, lines 5-24). In accordance with the teachings of Tang et al., the device having pixels comprising only a green sub-pixel (G_p) and a red sub-pixel (R_p) has each light-emitting element formed corresponding to every luminescent color conversion filter (R and G) which converts the light emitted from the light emitting film (EL), respectively (for example, see Figs. 4 and 5, and col. 38, lines 5-24).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogura et al. (US 2002/0070663 A1).

Regarding claim 5, Ogura teaches that organic electroluminescent layers emitting colors other than red, green, and blue may be used in the EL device. Ogura does not specifically recite white as one of the colors used in the device. However, the existence of white color organic electroluminescent materials and their use is well known in the art. It is noted that the applicant's specific use of the color white as one of the two different colors, does not solve any of the stated problems or yield any unexpected result that is not within the scope of the teachings applied. It is considered to be a matter of choice, which a person of ordinary skill in the art would have found obvious to select any two colors based on the desired colors of the display.

Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogura et al. (US 2002/0070663 A1) as applied to claims 1, 2, and 4, above, and further in view of Kobayashi et al. (US 6,628,067).

Regarding claims 3 and 13, Ogura teaches blue and yellow light-emitting organic EL materials used, but does not specifically teach that they are mixed together to produce a color falling within a circular area of 0.1 radius with its center in a pure white coordinate in the CIE xy

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chromaticity diagram. However, Kobayashi teaches blue and yellow organic light emitting elements having different emissive areas and used in combination to form an organic EL white light source that has CIE coordinates of (0.33, 0.35) (see for example col. 9, line 62 – col. 10, line 59). Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the two light-emitting elements emitting blue and yellow light, having different emissive areas so that they can operated at the same time to produce a white light source having an excellent CIE value.

Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogura et al. (US 2002/0070663 A1) as applied to claims 1, 2, and 4, above, and further in view of Matthies (US 6,498,592).

Regarding claims 14-15, Ogura et al. do not specifically teach the different colors being driven by a different current or different voltages. However, Matthies teaches an organic electroluminescent display device comprising a plurality of light emitting elements formed of different color light-emitting films driven by different currents and voltages from each other. Matthies teaches a color correction circuitry adapted to individually control the current passing through each region to correct for any differential aging of regions (col. 11, lines 1-40). The least efficient region is provided with the largest current since current is directly proportional to the intensity of the light emitted. Accordingly, it would have been obvious at the time the invention was made to include a color correction circuitry so that individual regions can be calibrated to display brightness levels which are consistent across the entire dynamic range of the display.

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Response to Arguments

Applicant's arguments with respect to claims 1-8 and 10-15 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

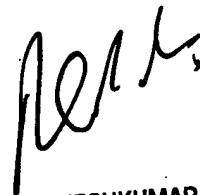
Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Anthony Perry* whose telephone number is (571) 272-2459. The examiner can normally be reached between the hours of 9:00AM to 5:30PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-2457. **The fax phone number for this Group is (571) 273-8300.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Anthony Perry
Patent Examiner
Art Unit 2879
May 15, 2006



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